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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,937	08/24/2001	Zohar Yakhini	10003516-1	2672

7590 07/23/2007
AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

SISSON, BRADLEY L

ART UNIT	PAPER NUMBER
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1634

MAIL DATE	DELIVERY MODE
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07/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/938,937	Applicant(s) YAKHINI ET AL.	
	Examiner /Bradley L. Sisson/	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12 June 2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12 June 2007 has been entered.

Election/Restrictions

2. Claims 1-9 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 17 August 2004.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(f) he did not himself invent the subject matter sought to be patented.

4. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

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do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,428,957 B1 (Delenstarr).

6. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

7. Delenstarr, third and fourth columns, discloses a method whereby a first plurality of nucleic acids (capture probes) are fixed to spatially addressable areas of an array. Each member of said first plurality comprises a different nucleotide sequence. Said method also requires the use of a second plurality of nucleic acids. Members of said second plurality (solution probes) comprise a first and second region. Each member of the second plurality has a different nucleotide sequence in the first region, which is complementary to a specific member of the first plurality.

8. The second region of the members of the second plurality is complementary to a target. The aspect of knowing that the second region is complementary speaks directly to the nucleotide

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sequences of the first, and second plurality members, as well as the nucleotide sequence of the target are all known.

9. Said method also comprises the formation of a complementary structure between the second region of the solution probe (member of the second plurality) and the target, and also between the first region of the solution probe and a member of the first plurality.

10. Delenstarr, column 6, third paragraph, teaches that the members of the second plurality comprise nucleotides that favor formation of duplex structures between probe and target, and not between second region of member of second plurality and a member of the first plurality. Such a showing is deemed to meet the limitation of step b), wherein “unstructured nucleotides” are present in the second region of the members of the second plurality of nucleic acids.

11. Delenstarr, column 6, fourth paragraph, teaches that hybridization between the target and second region of the solution probe, and between the first region of the solution probe and the capture probe can take place either simultaneously, or in a step-wise manner. Such a teaching meets a limitation of claim 11.

12. Delenstarr, column 31, second paragraph, teaches labeling the target sequence at some point during the assay, and that the label generates an optical signal.

13. Delenstarr, column 13, second paragraph, teaches that the label is part of the target molecule, and in the third paragraph, teaches that the label can be a fluorescent label. Such a showing meets a limitation of claims 13 and 14 wherein the label generates a light emission, which is detected.

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14. For the above reasons, and in the absence of convincing evidence to the contrary, claims 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,428,957 B1 (Delenstarr).

15. Claims 10-14 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. The instantly claimed invention is disclosed and claimed in US Patent 6,428,957 B1 (Delenstarr). The instant application does not share any common inventor with the Delenstarr patent. Accordingly, a question as to inventorship exists.

16. Claims 10-14 are directed to an invention not patentably distinct from claims 12-18, 27, and 28 of commonly assigned U.S. Patent No. 6,428,957 B1 (Delenstarr). Specifically, the Delenstarr patent fairly teach a method for performing hybridization reaction using a first plurality of nucleic acids that are immobilized in an array pattern on a substrate; a second plurality of nucleic acids that comprise a first and second region, wherein the first region is complementary to a specific member of the first plurality, and wherein the second region is complementary to a known sequence of a target nucleic acid. Delenstarr also discloses the incorporation of nucleotides which reduce the likelihood of a duplex structure forming between a second region of a member of the second plurality and a member of the first plurality (applicant's unstructured nucleotides), but which do favor the formation of a duplex structure between the second region of a member of the second plurality and the target nucleic acid.

17. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300).

Commonly assigned US Patent 6,428,957 B1 (Delenstarr), discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

18. A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Double Patenting

19. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225

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USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

20. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

21. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

22. Claims 10-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12-18, 27, and 28 of U.S. Patent No. 6,428,957 B1 (Delenstarr). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the Delenstarr patent fairly teach a method for performing hybridization reaction using a first plurality of nucleic acids that are immobilized in an array pattern on a substrate; a second plurality of nucleic acids that comprise a first and second region, wherein the first region is complementary to a specific member of the first plurality, and wherein the second region is complementary to a known sequence of a target nucleic acid. Delenstarr also discloses the incorporation of nucleotides which reduce the likelihood of a duplex structure forming between a second region of a member of the second plurality and a member of the first plurality (applicant's unstructured nucleotides), but which do favor the formation of a duplex

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structure between the second region of a member of the second plurality and the target nucleic acid.

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (571) 272-0751.

The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley L. Sisson/
Primary Examiner
Art Unit 1634

BLS